

ABSTRACT

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Title: Monitoring of bacterial colonization in newborns at OPN1 - JIP, RES ward in ÚPMD Podolí in 2008-2010

Thesis

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Field of Study: Specialist in laboratory methods

Objective of the thesis: Monitoring of bacterial colonization in neonatal intensive care units is a very important preventive measure leading to the detection of possible sepsis agents. This is especially important for premature infants since colonization and otherwise harmless microorganisms have fatal consequences. The aim of this thesis was to determine the most common bacterial agents involved in the colonization of newborns in neonatal intensive care units, while tracing the incidence of different bacterial strains in these units.

Methods: This thesis developed and then evaluated the results of bacteriological culture examination of clinical samples from children of neonatal department OPN 1 - JIP, RES in ÚPMD Podolí for the period 2008-2010. All data were carefully recorded in organized tables to facilitate their evaluation.

Results: The largest incidence in clinics under investigation was *Staphylococcus epidermidis* (37 %), which is cited in the literature as the most common cause of neonatal sepsis. The second most frequent microbe detected was *Enterococcus faecalis* (23 %). Third place went to *Staphylococcus haemolyticus* (12 %).

Conclusion: The test results are generally consistent with those reported in the literature and published studies. The findings indicate no increased incidence of nosocomial strains during this study, which indicates a good level of department hygiene and compliance with epidemic prevention.